

WHAT IS CLAIMED IS:

1. A substrate processing apparatus successively transporting a substrate between a plurality of processing parts thereby performing prescribed processing on said substrate, comprising:
- a transport robot successively transporting said substrate between said plurality of processing parts along a prescribed procedure; and
- a plurality of inspection parts, performing substrate inspections of different contents respectively, provided in said substrate processing apparatus.
- 10 2. The substrate processing apparatus according to claim 1, wherein
said transport robot transports said substrate to selected inspection parts
partially or totally selected from said plurality of inspection parts.
- 15 3. The substrate processing apparatus according to claim 2, wherein
said transport robot successively transports a set of plural substrates along the
same procedure so that said set of plural substrates are subjected to the same processing,
and
said transport robot transports each of part or all of said set of plural substrates
20 to a single said inspection part selected from said plurality of inspection parts thereby
transporting at least one of said set of plural substrates to each of said plurality of
inspection parts.
- 25 4. The substrate processing apparatus according to claim 3, wherein
a transport path is formed along said procedure, and

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each of said plurality of inspection parts is arranged on an intermediate position in said transport path responsive to the inspection contents thereof.

5. The substrate processing apparatus according to claim 4,

5 changing a processing condition in any of said plurality of processing parts on the basis of results of said inspections performed by said plurality of inspection parts.

6. The substrate processing apparatus according to claim 5, performing resist coating processing and development processing on said substrate, wherein

10 said plurality of inspection parts include at least two of a resist film thickness measuring part, a pattern line width measuring part, a pattern overlay measuring part and a macro defect inspection part.

7. A substrate inspection method for inspecting a substrate, comprising:

15 a processing step of transporting a set of plural substrates between a plurality of processing parts along the same procedure thereby performing substrate processing; and

an inspection step of performing an inspection selected from a plurality of substrate inspections of different contents on each of part or all of said set of plural substrates thereby performing each of said plurality of substrate inspections on at least

20 one of said set of plural substrates.

8. The substrate inspection method according to claim 7, wherein

said substrate processing is resist coating processing and development processing on said substrates, and

25 said plurality of substrate inspections include at least two of resist film

measurement, pattern line width measurement, pattern overlay measurement and a macro defect inspection.

9. A substrate processing apparatus successively transporting a substrate
5 between a plurality of processing parts thereby performing prescribed processing on said
substrate, comprising:

a transport part successively transporting said substrate between said plurality
of processing parts along a prescribed procedure;

an inspection part performing a prescribed inspection on said substrate;

10 a procedure setting part capable of incorporating substrate transportation to said
inspection part into an arbitrary order position in said procedure; and

a transportation control part controlling said transport part to successively
transport said substrate along said procedure set by said procedure setting part.

15 10. The substrate processing apparatus according to claim 9, wherein
said procedure setting part is capable of setting said procedure every said
substrate.

11. The substrate processing apparatus according to claim 9, wherein
20 said procedure setting part is capable of setting said procedure every set of a
prescribed number of said substrates.

12. A substrate processing apparatus successively transporting a substrate
between a plurality of processing parts thereby performing prescribed processing on said
25 substrate, comprising:

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a transport part successively transporting said substrate between said plurality of processing parts along a prescribed procedure;

a plurality of inspection parts performing prescribed inspections on said substrate;

5 a procedure setting part capable of individually incorporating substrate transportation to said plurality of inspection parts into an arbitrary order position in said procedure; and

a transportation control part controlling said transport part to successively transport said substrate along said procedure set by said procedure setting part.

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13. The substrate processing apparatus according to claim 12, wherein each of said plurality of inspection parts is any of a thickness measuring part measuring the thickness of a resist film, a line width measuring part measuring the line width of a pattern, an overlay measuring part measuring overlay of said pattern and a 15 macro defect inspection part.

14. The substrate processing apparatus according to claim 12, wherein any of said plurality of inspection parts is capable of performing resist film thickness measurement, pattern line width measurement and pattern overlay 20 measurement.

15. The substrate processing apparatus according to claim 13, wherein said procedure setting part is capable of setting said procedure every substrate.

25 16. The substrate processing apparatus according to claim 13, wherein

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said procedure setting part is capable of setting said procedure every set of a prescribed number of said substrates.

17. A substrate processing system performing prescribed processing on a

5 substrate, comprising:

a) a substrate processing apparatus comprising:

a-1) a plurality of processing parts processing said substrate,

a-2) a transport part successively transporting said substrate between said plurality of processing parts along a prescribed procedure, and

10 a-3) an inspection part performing a prescribed inspection on said substrate;

b) a procedure setting part capable of incorporating substrate transportation to said inspection part into an arbitrary order position in said procedure; and

c) a transportation control part controlling said transport part to successively transport said substrate along said procedure set by said procedure setting part.

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18. The substrate processing system according to claim 17, wherein

said procedure setting part is capable of setting said procedure every said substrate.

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19. The substrate processing system according to claim 17, wherein

said procedure setting part is capable of setting a procedure every set of a prescribed number of said substrates.

THE UNITED STATES PATENT AND TRADEMARK OFFICE